REMARKS

Status of Claims

Claims 41-47 are in the present application. Claims 1-3, 7, 10-14, 16, 18, and 27-28 are withdrawn pursuant to a restriction requirement. Claims 4-6, 8-9, 15, 17, 19-26 and 29-40 are cancelled. Claims 41-47 are newly added. No new matter is introduced.

Restriction Requirement

The Office has imposed a restriction requirement as follows.

Group I: Claims 1-3, 7, 10-14, 16, 18, and 27-28, drawn to a method of constructing a composite bilayer material

Group II: Claims 21-23, 26, 30-32, and 34, drawn to a composite bilayer material.

In a telephone conference with the Examiner on May 11, 2009, the undersigned provisionally elected to prosecute claims of Group II, without traverse and without prejudice to seek reinstatement of Group I if Group II claims are found allowable. Applicant hereby affirms that election without traverse and without prejudice.

Claims 21-23, 26, 30-32, and 34 are cancelled and replaced by new claims 41-47. The new claims 41-47 are all directed to a bilayer composite material or absorbent article containing same, and are thus consistent with the elected invention.

Claim Objections

Claim 31 is objected to as improperly drafted. Claim 31 is cancelled and the rejection is moot.

Claim Rejections: 35 USC §112

Claims 21-23, 26, 30-32 & 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which application regards as the invention.

Claims 21-23, 26, 30-32 & 34 are cancelled and the ambiguities noted by the Office have been addressed and rectified in the new claims.

Claim Rejections: 35 USC §102

Claims 21-22, 30-32 & 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu (U.S. Pat. No. 6,274,218) as evidenced by Duncan (U.S. Pat. No. 3,592,194).

The Office position is that Shimizu teaches a unified structure having a hydrophobic first layer and a hydrophilic second layer, the first layer having at least one recess, wherein the surface energy difference between the first layer and the second layer is sufficient such that a liquid placed on top of the first layer at least partially penetrates the recess to the second layer. Duncan is relied upon by the Office for the teaching that "hydrophobic" refers to relatively low surface energy and "hydrophilic" refers to relatively high surface energy.

The rejection is moot in that claims 21-22, 30-32 & 34 are cancelled. However, to advance prosecution, Applicant's will comment on the rejection as it applies to new claims 41-47.

Claim 41 recites a composite comprising a nonwoven fibrous web bonded to an apertured film to form a unified structure, wherein the unified structure has been activation stretched to create localized disturbances in the nonwoven fibrous web to expose the film, wherein the nonwoven web has a surface energy that is less than the surface energy of the apertured film

such that the composite has a surface energy gradient within the unified structure. Basis for this claim is found, for example, at page 3, lines 21-33 and page 7, lines 24-29.

Shimizu fails to anticipate or render claims 41-47 obvious. Shimizu teaches a topsheet comprising a first nonwoven web bonded to a second nonwoven web. The first nonwoven web may be either hydrophobic or hydrophilic and the second nonwoven web is more hydrophilic than the first. The second nonwoven web has a greater density than the first nonwoven web and the composite has a plurality of apertures that extend through the first and second webs. The webs are integrated around the apertures to provide a progressively increasing density from the surface of the first web through the composite.

Shimizu does not teach a composite comprising a nonwoven web bonded to an apertured film. Instead, Shimizu specifically teaches that the composite has two nonwoven webs. Shimizu further teaches that the density difference between the two nonwoven webs is critical and that it is also critical to have a density gradient in the area of the apertures. Thus Shimizu cannot properly be read to suggest a composite formed from a nonwoven and a film.

Shimizu also fails to teach localized disturbances in the nonwoven web. . Nor does Shimizu teach activation stretching of the composite. Applicant has discovered that activation stretching of the composite creates localized disturbances in the fibrous web that provides unique properties to the composite as compared to other composites made using materials of different surface energies. Specifically, the activation stretching creates a composite that acts as a single layer material with an internal energy gradient as opposed to a bilayer material that has a distinctive energy gradient change at the interface of the layers.

Shimizu teaches that the composite is provided with a plurality of apertures 6 that extend through both webs that form the composite. In applicants composite, the nonwoven web is provided with local disturbances via the activation stretching. It is those disturbances that provide points of access for liquids placed on the nonwoven web to reach the underlying film layer. In Shimizu, fluids placed on the surface of the nonwoven web travel through both layers forming the composite to the absorbent core 4. The only way for liquids to pass through the nonwoven web 11 and reach the web 12 in Shimizu is for the liquid to travel through the interstitial spaces between the fibers forming the web 11. Those interstitial spaces are not properly considered "localized disturbances" and are not the result of any action taken on the web.

Moreover, Shimizu expressly teaches that the webs are unified in the area of the apertures 6 so as to provide a gradually increasing density gradient. This cannot be accomplished by activation stretching and indeed requires that the webs be apertured simultaneously so that a single aperture through the entire composite is formed. By contrast, in Applicant's composite, the film is either already apertured when bonded to the nonwoven or is simultaneously apertured during bonding. But in either case, the local disturbances in the nonwoven are not created until after the webs are bonded together. Thus, the process taught by Shimizu is not capable of forming the web recited in claims 41-47.

Claims 21-23, 26, 30-32 & 34 also stand rejected under 35 U.S.C. 102(b) as anticipated by Chen et al. (U.S. Pat. No. 5,990,377), as evidenced by Duncan (U.S. Pat. No. 3,592,194).

The Office position is that Chen teaches a unified structure having a hydrophobic first layer and a hydrophilic second layer, the first layer having at least one recess, wherein the surface energy difference between the first layer and the second layer is sufficient such that a

liquid placed on top of the first layer at least partially penetrates the recess to the second layer. Duncan is relied upon by the Office for the teaching that "hydrophobic" refers to relatively low surface energy and "hydrophilic" refers to relatively high surface energy.

The rejection is moot in that claims 21-22, 30-32 & 34 are cancelled. However, to advance prosecution, Applicant's will comment on the rejection as it applies to new claims 41-47.

Claim 41 recites a composite comprising a nonwoven fibrous web bonded to an apertured film to form a unified structure, wherein the unified structure has been activation stretched to create localized disturbances in the nonwoven fibrous web to expose the film, wherein the nonwoven web has a surface energy that is less than the surface energy of the apertured film such that the composite has a surface energy gradient within the unified structure. Basis for this claim is found, for example, at page 3, lines 21-33 and page 7, lines 24-29.

Chen fails to anticipate or render claims 41-47 obvious. Chen teaches a composite having a hydrophilic web that is textured or embossed to provide raised and recessed areas wherein the raised areas are provided with a hydrophobic material to enhance the dry feeling to the wearer. Column 2, lines 52-59. The hydrophilic web is made from aqueous slurries of papermaking fibers using known papermaking techniques. Column 3, lines 25-26. The hydrophobic material applied to the raised portions of the hydrophilic web may be a nonwoven web with macroscopic openings which are aligned with the depressed or recessed areas of the hydrophilic web. Column 4, lines 55-61.

Chen does not teach or suggest a composite containing a nonwoven web bonded to an apertured film. The hydrophilic base sheet of Chen is not apertured and is not a film – it is a wet laid paper web.

Chen also does not teach or suggest creating localized disturbances in the fibrous nonwoven web to expose the film and fails to teach or suggest stretch activation to create those disturbances. Rather, Chen teaches forming macroscopic openings in the nonwoven web and then aligning those openings with the depressed areas of the hydrophilic base sheet. Those openings are formed prior to bonding of the nonwoven web to the base sheet. Accordingly, the process disclosed in Chen cannot produce the composite recited in claims 41-47.

Conclusion

For the reasons stated above, claims 41-47 define patentable subject matter and the references of record do not teach, disclose or suggest the composite recited therein. Reconsideration and withdrawal of all claim objections and claim rejections is solicited, as is a notice of allowance with respect to the claims under prosecution.

Upon the indication of allowable subject matter, Applicant will seek to rejoin the withdrawn claims and amend those claims to conform in scope to the allowed claims.

If the Office is not inclined to allow the claims in their current form, the Examiner is invited to contact the undersigned attorney by telephone to discuss the speedy resolution of any remaining issues.

Respectfully Solicited,

Joseph A. Tessari
Registration No. 32,177
Attorney for Applicants
Telephone 610-565-8555